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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,574	10/17/2003	Didier Lacroix	Q77887	8954

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EXAMINER	
KIM, WESLEY LEO	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/686,574	LACROIX ET AL.	
	Examiner	Art Unit	
	Wesley L. Kim	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-17 and 19-27* is/are rejected.

7)☐ Claim(s) *6 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/17/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Claim 1 recites the limitation "said network controller" in line5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-2, 13-14, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lahtinen (U.S. Patent 6169900 B1) in view of Alvesalo et al (U.S. Patent 6745032 B1).

Regarding Claims 1, 13, and 25-27, Lahtinen teaches managing changing of channels between a communications network and at least one network equipment (Col.1;61-Col.2;25) wherein after setting up a connection for sending or receiving data on a first channel between said network and said network equipment (Fig.2;1, a first channel between network and network equipment is established); and Lahtinen

further teaches network equipment continuing said connection on a second channel (Col.2;14-16, MS can communicate with BSS-B) and maintaining said first channel (Col.2;22-25, the first channel is maintained until the handover complete message is sent) until said network receives data or acknowledgements of data from said network equipment (Col.2;16-20, the MS sends handover complete message along the second channel, the channel from the MS and BSS-B) on said second channel, whereupon the resources associated with said first channel are released (Col.2;15-25), however Lahtinen **is silent on** sending a message, from said network controller to said network equipment, on said first channel instructing said network equipment to continue said connection on a second channel and to maintain said first channel until said network receives data or acknowledgements of data from said network equipment on said second channel, whereupon the resources associated with said first channel are released.

Alvesalo teaches that a network controller is capable of sending to the MS, i.e. network equipment, along a first channel (Col.6;554-55, a message from RNC1 to the MS is sent along first channel), instructions on how to manage channels that it is connected to (Col.6;54-55, releasing a channel is managing channels). It is known that the network equipment continues said connection on a second channel and to maintain said first channel until said network receives data or acknowledgements of data from said network equipment on said second channel, whereupon the resources associated with said first channel are released and there must be some sort of messaging going on within the system such that the above is possible (See

Lahtinen). To the examiner, it is obvious that if instructions can be sent to the network equipment along the channels to release the channel, then it would be obvious for a skilled artisan to envision sending messages along a channel, which would instruct the network equipment to continue said connection on a second channel and to maintain said first channel until said network receives data or acknowledgements of data from said network equipment on said second channel, whereupon the resources associated with said first channel are released.

To one of ordinary skill in the art, it would have been obvious to modify Lahtinen with Alvesalo, such that a message is sent from said network controller to said network equipment, on said first channel instructing said network equipment to continue said connection on a second channel and to maintain said first channel until said network receives data or acknowledgements of data from said network equipment on said second channel, whereupon the resources associated with said first channel are released, to provide a method where the user may roam from one service area, resulting in a soft handover, to another service area without interrupting an ongoing call during the soft handover.

Regarding Claims 2 and 14, Lahtinen and Alvesalo teach all the limitations as recited in claims 1 and 13, and Lahtinen further teaches that data is sent to said network equipment on first channel and said second channel until data or acknowledgements of data are received from said network equipment on said second channel (Col.2;15-25, there is communications going on between the mobile

and RNC1 and RNC2 until the handover complete message is sent to RNC2 by the mobile station).

2. Claims 3-5, 9-12,15-17, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lahtinen (U.S. Patent 6169900 B1) and Alvesalo et al (U.S. Patent 6745032 B1) in further view of Kwak (U.S. Pub. 2003/0039226 A1).

Regarding Claims 3 and 15, Lahtinen and Alvesalo teach all the limitations as recited in claims 1 and 13, however the combination **is silent on** the message being repeated on said first channel a chosen number of times in accordance with a chosen time scheme.

Kwak teaches that a message is repeated on said first channel a chosen number of times in accordance with a chosen time scheme (Par.13;12-14, it is obvious that the messages are transmitted a number of times within a time scheme, i.e. occasionally; the retransmissions are not going to be random but will be controlled by the network).

To one of ordinary skill in the art, it would have been obvious to modify Lahtinen and Alvesalo at the time of the invention, such that the message being repeated on said first channel a chosen number of times in accordance with a chosen time scheme, to provide a method where the retransmission ensures that the message is received when no acknowledgement is received.

Regarding Claims 4 and 16, the combination as discussed above teaches all the limitations as recited in claims 3 and 15, and Lahtinen further teaches the number of repetitions is chosen as a function of a required success rate and/or a

measured error rate (Par.13;1-14 and Par.14-15, if the number of repetitions exceeds 8, then the success rate is deemed to be poor).

Regarding Claims 5 and 17, the combination as discussed above teaches all the limitations as recited in claims 3 and 15, however the combination **is silent on** the time scheme being periodic.

The examiner takes **Official Notice** that it is well known in the art that message can be transmitted periodically, to provide a method where the message is sent to network equipment to ensure that the message is received when no acknowledgement is received.

Regarding Claims 9 and 21, the combination as discussed above teaches all the limitations as recited in claims 1 and 13, and Kwak further teaches that a message is repeated a chosen number of times until acknowledgments of data are received from said network equipment (Par.13;1-14).

Regarding Claims 10-12 and 22-24, the combination as discussed above teaches all the limitations as recited in claims 9 and 21, and Kwak further teaches that the message is repeated said chosen number of times while said network controller monitors said network to detect any change of behavior of the network equipment to which said message is sent (Par.12 and 13;1-14, receiving an ACK from the network equipment is a change) and Lahtinen further teaches that an ACK, i.e. handover complete, message is sent on a second channel (Col.2;16-25).

3. Claims 7-8 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lahtinen (U.S. Patent 6169900 B1) and Alvesalo et al (U.S. Patent 6745032 B1) in further view of Dupuy.

Regarding Claims 7-8 and 19-20, Lahtinen and Alvesalo teach all the limitations as recited in claims 1 and 13, however the combination **is silent on** a time is determined that enables said message to reach said network equipment on said first channel prior to data received by said network equipment on said second channel by an amount at least equal to the time necessary for the network equipment to change from said first channel to said second channel, and the sending of data on said first channel and said second channel is delayed by a time amount that is a function of said time and that the time is also a function of the data bit rates and/or data sending speeds of said first channel and said second channel.

However, Dupuy teaches that when a mobile unit moves from one cell to another, timing advance data must be taken into consideration and transmitted to the mobile station. See abstract and column 1, lines 10 to 19. Dupuy also teaches a method of calculating a timing advance performed at a network element, such as a BTS (Col.2, lines 17 to 50). The calculation takes into consideration the time between reception of a signal from the mobile unit and a clock signal within the BTS. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to understand that a network element, such as a BTS would have to calculate a timing advance, as taught by Dupuy, in order to ensure, for example, that messages sent between the mobile unit and a network controller

would not interfere or overlap with other messages sent by other mobile units (Col.2; lines 38-50).

Allowable Subject Matter

Claims 6 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6 and 18 each recite, inter alia, wherein the message repetition period is chosen to prevent correlation between error rates associated with two consecutive messages.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley L. Kim whose telephone number is 571-272-7867. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WLK

GEORGE ENG
SUPERVISORY PATENT EXAMINER